

## CLAIMS

1. A power combining assembly, comprising:

an input power source having a plurality of torque transmitting means rotatable about a first rotation axis;

an output power source having a torque transmitting means rotatable about said rotation axis;

a control means;

a locking assembly rotatable about said rotation axis having a plurality of locking means interacting with said control means, and interacting with said input torque transmitting means,

the arrangement being such that, as said output torque transmitting means rotates through a cycle of 360 degrees, said locking means engages successive input torque transmitting means, and at least one of said locking means maintains mechanical communication with both input and output at all times during a complete cycle of output torque transmitting means.

2. A clutching assembly, comprising:

a clutched means rotatable about a first rotation axis;

a clutch control means having a plurality of cams and rotatable about said rotation axis, each cam being of a predetermined shape;

a clutching means rotatable about said rotation axis having a plurality of clutches interacting with said first clutch control means, and interacting with said clutched means,

the arrangement being such that, as said clutching means rotates through a cycle of 360 degrees, said clutching means engages successive cams along said clutch control means, and at least one of said clutches maintains mechanical communication with said clutched means at all times during a complete cycle of clutching means.

3. The assembly as claimed in claim 2, wherein said cams are at a larger radius on said rotation axis than said clutching means.

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4. The assembly as claimed in claim 2, wherein said cams are at a smaller radius on said rotation axis than said clutching means.
5. The assembly as claimed in claim 2, wherein noncircular gears control the radial position of the cams.
6. The assembly as claimed in claim 2, wherein the clutched means is a drum and the clutching means is a band.